

Abstract of the Disclosure

A cathode for an electron tube and a method of preparing the same are provided. In a cathode for an electron tube, comprising a base metal and an electron-emitting material layer attached on the base metal, the electron-emitting material layer includes a needle-shaped conductive material and a surface roughness, which is measured from the distance between a highest point and a lowest point of the surface of the electron-emitting material layer, is controlled to be no greater than 10 μm . The cathode for an electron tube is improved in compactness and surface evenness by minimizing generation of Joule heat due to self-heating such that a conductive path is effectively formed by comprising a needle-shaped conductive material in an electron-emitting material layer, and by controlling the sizes of particles and pores constituting the electron-emitting material layer to be uniform and controlling the density and porosity of the electron-emitting material layer, compared to a cathode prepared according to a conventional spraying method. Accordingly, shrinking of a cathode during operation can be prevented, and the distance between the cathode and a G1 electrode can be maintained uniform, so that the present invention greatly extends the life of a cathode and realizes a stable electron emission characteristic. Therefore, the life characteristic of the cathode is greatly improved even in an area of high current density attendant upon the high definition and large scale of recent television Braun tubes.